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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,338	10/31/2001	Joseph G. Souza	MS164031.1 (4934)	5199

321 7590 03/30/2005

SENNIGER POWERS LEAVITT AND ROEDEL
ONE METROPOLITAN SQUARE
16TH FLOOR
ST LOUIS, MO 63102

EXAMINER

PERVEEN, REHANA

ART UNIT PAPER NUMBER

2116

DATE MAILED: 03/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/003,338	Applicant(s) SOUZA ET AL.	
	Examiner Rehana Perveen	Art Unit 2116	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 and 33-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-31 and 33-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Amendment

Claims 1-31 and 33-51 are rejected under 35 U.S.C. 102(e) as being anticipated by Fry et al, Patent No. 6,496,938.

As to claims 1, 17, 25, and 27, Fry et al teach sending an idle request from a device (Device 23, figure 3) to a root hub (bus 20) when the device is ready to be suspended, the device waiting to receive a call from the root hub to a callback function associated with the device (CLR2 40, figure 3), and executing the callback function to selectively suspend the device (col. 7 lines 65-67), wherein the device is connected to the root hub via a communication medium and wherein a state associated with each of the other devices is maintained (figure 3, col. 7 line 46 – col. 8 line 10).

As to claim 2, Fry et al teach a computer including the root hub (computer system 100, figure 2, col. 7 lines 13-15) and the device is a peripheral component associated with the computer (PCI device 23, figure 3).

As to claim 3, Fry et al teach the peripheral component is selected from a group consisting of a composite device, a root hub, and a controller (col. 7 lines 22-32).

As to claims 4 and 26, Fry et al teach the sending and waiting occur via a driver controlling the device (CLR2 40, col. 8 lines 28-59).

As to claim 5, Fry et al teach the device has an active state and an idle state and wherein the device is ready to be suspended when in the idle state (col. 7 lines 51-67).

As to claim 6, Fry et al teach the device comprises one of a plurality of nodes organized in a tree structure and the device comprises a child node of the root hub (inherent for the USB structure, col. 5 lines 45-61).

As to claims 8, 28, and 29, Fry et al teach the nodes in the tree are connected via a USB and suspending a USB host controller (figure 2, col. 5 lines 55-61).

As to claim 9, Fry et al teach the device has one or more child nodes in the tree structure (when the PCI device 23 is a PCI back-plane, figure 2), and wherein the device is ready to be suspended when each of the one or more child nodes of the device is ready to be suspended (inherently when the back-plane is powered down, all connected devices are also powered down, figure 2, col. 6 line 62 – col. 7 line 3).

As to claims 10-12, Fry et al teach the device receiving an idle request from at least one of the child nodes of the device and propagating the idle request, by inductively traversing the tree structure, from the device to a controller (figure 2, col. 10 lines 44-46 and col. 11 lines 27-34).

As to claim 13, Fry et al teach propagating the idle request comprises transmitting the received idle request from the device to the root hub if the device is ready to be suspended and if the device has received an idle request from each of the child nodes of the first device (col. 12 lines 15-23).

As to claim 14, Fry et al teach determining whether the device has received an idle request from each of the child nodes of the device, waiting to receive an idle request from each of the child nodes if an idle request from each of the child nodes has not been received, and submitting an idle request to the root hub if the device has received an idle request from each of the child nodes (col. 12 lines 15-23).

As to claims 15, 16, 30, and 31, Fry et al teach receiving an idle request comprises receiving an I/O control request, which comprises an I/O request packet, by the controller from one or more child device (col. 5 lines 51-67).

As to claims 18-22, Fry et al teach waking the device, waking occurs in response to the device signaling the root hub that the device is ready to wake or the root hub signaling the device to wake or one of the child nodes signaling the device to wake, and waking comprises resetting the sent idle requests (col. 8 lines 11-59).

As to claim 23, Fry et al teach sending a cancel request from the device to the root hub when the device is no longer ready to be suspended, said cancel request occurring after sending the idle request (col. 8 line 60 – col. 9 line 4).

As to claim 24, Fry et al teach another device sending an idle request to the root hub when the other device is ready to be suspended and suspending simultaneously with the device, said other device having I/O control and function independent from the device (inherent for an USB network of more than one USB Hub connected to the host computer, col. 5 lines 57-61 and col. 12 lines 41-42).

As to claim 51, Fry et al teach the state comprises an active state, an idle state, or a suspended state (col. 7 line 51 – col. 8 line 10).

Claims 7 and 33-50 are directed to the computer readable media of method claims 1-6, 8-31, and 51. Fry et al teach the method as set forth in claims 1-6, 8-31, and 51. Therefore, Fry et al also teach the computer readable media as set forth in claims 7 and 33-50.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rehana Perveen whose telephone number is 571-272-

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3676. The examiner can normally be reached on Monday thru Thursday between 8:00am - 6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne H Browne can be reached on 571-272-3670. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Rehana Perveen
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